UNILATERAL HÆMATURIA FROM CHRONIC NEPHRITIS.

RECOVERY AFTER DECAPSULATION OF KIDNEY.

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THE most common cause of obscure renal bleeding is perhaps tuberculosis. Next in frequency comes chronic nephritis, usually of the interstitial type, and often attacking the glomeruli. It may be bilateral or unilateral; it may involve the entire kidney, or appear in small portions of the organ only, which has often led, no doubt, to its non-recognition.

Every physician knows that minute quantities of blood often appear in the urine of patients having interstitial nephritis, especially in its advanced stages; but few seem to be aware that copious and prolonged hæmorrhages may arise, even when the disease is comparatively trivial, as has been demonstrated in many cases during recent years.

Either medical or surgical treatment will be employed according to the amount of the hæmorrhage, the condition of the patient, etc.; but it is noticeable that the tendency is more and more towards operation, in severe cases at least.

The following operations have been employed: Nephrectomy, Nephrotomy (with closure of wound or with packing), Decapsulation, Acupuncture, Nephropexy, and Simple exposure of the kidney by lumbar incision.

Nephrectomy should seldom, if ever, be done in chronic nephritis because of the immediate or remote danger of involvement of the other kidney, several disasters having occurred from lack of recognition of this fact.

Nephrotomy has been the operation of choice in the past, and has scored many successes. The manner in which it effects a cure is not readily understood. Some claim that relief of tension through division of the fibrous capsule is the prime factor; while others contend that the result is obtained by relief of congestion through the formation of new blood-vessels in the adhesions following operation.

It has also been asserted that nervous influence is the principal feature; while Senator (*Deut. med. Woch.*, 1902, No. 8) is convinced that it is the mere breaking up of adhesions or the fixation of a more or less movable organ.

It may be that these explanations are all applicable at different times, according to the nature of the case; but I am inclined to think that the astonishingly rapid disappearance of the bleeding, which so often takes place, is due to local depletion, and that permanent hæmostasis depends upon the growth of new vessels in the perirenal adhesions. In opposition to this view, however, I have seen a profuse renal hæmaturia, in connection with enlargement of the prostate, immediately cease, following a suprapubic cystostomy. Similar observations have been made by others.

Decapsulation, which has recently attracted so much attention in the treatment of chronic nephritis, has been attended with fair success. Seeing that many obscure cases of renal hæmaturia are now known to arise from nephritis, it would seem rational to select decapsulation as the operation of choice rather than nephrotomy, because, in addition to stopping the hæmorrhage as effectively, at least, as the latter, it appears to be the best method at our command for checking the nephritis.

Acupuncture, although advocated at one time, is no longer to be considered. It is good so far as it goes, but it accomplishes less than either nephrotomy or decapsulation.

Nephropexy is required in movable kidney only. As done by most surgeons, it involves a preliminary decapsulation, which may often account for some of the good effects obtained.

Simple exposure of the kidney by lumbar incision has on several occasions caused immediate cessation of hæmaturia (Eshner, *American Journal of the Medical Sciences,* Vol. i, 1903, p. 636; Broca, *Centralblatt für Chirurgie,* 1895, p. 237), a phenomenon which is rather difficult of explanation except on the theory of nervous influence or by the previously noted suggestion of Senator.

Operations for renal hæmaturia, especially decapsulation, are sufficiently uncommon to warrant the relation of the following case history.

The patient, who was referred to me by Dr. J. E. Kinney, was an Irishman, fifty-nine years of age, well built, but very anæmic and considerably emaciated. He first noticed blood in the urine about twenty years ago, since when he has had repeated attacks of bleeding lasting from a few days to a few weeks. The hæmorrhage was often profuse, not to say alarming, the urine being opaque with blood and often thick with clots. At times a jelly-like coagulation would take place in the vessel as soon as the urine was voided. For an entire year previous to the operation the patient had bled constantly and profusely until so weak, anæmic, and emaciated that he could scarcely get about. At various times during his illness pain was experienced over the bladder, but none along the ureters or over the kidneys. There were no uræmic symptoms.

Internal medication failed completely; the suprarenal extract, among other things, being pushed to the limit.

Segregation with the Harris instrument showed that the bleeding came from the left kidney alone, the urine from the right side being normal in color and perfectly clear, although it contained a few hyaline and granular casts and a trace of albumen, which may have come from an imperfect cleansing of the bladder. The total quantity of urine in twenty-four hours was about fifty ounces. (It seems superfluous to add that no operation should be done in these cases without previous separation of the two urines when this is possible.)

There was hypertrophy of the heart and atheroma of the arteries, as determined by Dr. J. N. Hall, who also estimated the percentage of hæmoglobin at about thirty.

The left kidney could not be palpated with certainty, and there was no tenderness; in fact, nothing to call attention to the origin of the hæmorrhage.

A provisional diagnosis was made of unilateral renal hæmaturia from chronic interstitial nephritis, which was concurred in by Dr. Hall. Decapsulation of the left kidney was advised, and the patient put to bed and given iron and strychnine until the hæmoglobin increased to about 50 per cent.

Operation, June 15, 1903.—Under chloroform, a longitudinal lumbar incision was made; the kidney, which was normal in size, shelled out of its adherent fatty capsule, delivered with difficulty through the wound, and decapsulated. The surface was granular, mottled yellowish-gray, and the fibrous capsule adherent. Considerable hæmorrhage from the cortex occurred, which was with difficulty checked by prolonged pressure. (Attention has also been called to this bleeding by Albarran, *Centralblatt für Chirurgie,* 1900, p. 24.) The operation lasted thirty minutes.

Recovery was uneventful. During the first twenty-four hours thirty (30) ounces of urine were passed, and during the second twenty-four hours, fifty (50) ounces. The blood rapidly vanished from the urine, which became clear during the night following the operation, that is, within eighteen hours. Many granular and hyaline casts were then found.

During the ten weeks which have elapsed since the operation there has been no return of the hæmaturia. The patient has gained twelve pounds in weight, and has regained strength and energy to an astonishing degree. Analysis of the urine on August 25, 1903, shows it to be normal in color and perfectly clear, with a specific gravity of 1022; no albumen, no blood-corpuscles, and no casts. Another examination on November 12, 1903, gave similar results. On February 22, 1904, the patient reports himself in excellent condition. Hence, there seems to be recovery not only from the hæmaturia, but also from the chronic nephritis.

A small piece of the renal cortex, which was removed during the operation, was subjected to microscopic examination. It showed a marked glomerulonephritis with abundant small-celled infiltration between the tubules. Some of the glomeruli were almost entirely replaced by connective tissue. There was also advanced arteriosclerosis. It is worthy of remark that in the literature of the subject glomerulonephritis seems to occupy a more prominent position than do other renal lesions.

Conclusions.—(1) A prominent cause of renal hæmaturia, which is often unilateral, is chronic interstitial nephritis, often involving the glomeruli.

(2) This, together with other obscure causes, must be excluded before a diagnosis of "essential hæmaturia" can be made.

(3) Decapsulation of the kidney is indicated in these cases, as it offers a good prospect for cure of both the hæmaturia and the nephritis. Nephrectomy should be discarded on account of probable involvement of the other kidney.